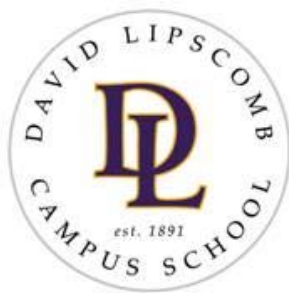


## Tennessee Pollution Prevention Partnership Success Story



David Lipscomb Elementary  
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[www.dlcs.lipscomb.edu](http://www.dlcs.lipscomb.edu)



1-800-734-3619  
[www.tdec.net/oea/tp3](http://www.tdec.net/oea/tp3)

### Lipscomb Elementary Tackles Air Pollution

#### THE MEMBER

David Lipscomb Elementary School (PK-4<sup>th</sup>-grade) enrolls approximately 380 students. The school is a private, Christian institution with 46 members of the faculty and staff. It is part of the Campus School system of Lipscomb University, located in Nashville, TN.

#### THE STORY

Thirty-one students suffer from asthma, and 45 students and several staff members are regularly plagued with allergies. Therefore, we designated April as 'Clean Air Month' at our school, focusing on air quality education. A science lab, titled "Case of the Green Feathers," demonstrated how allergens, indoor and outdoor air pollutants, affect different people. A faculty in-service will train teachers to recognize and deal with students' asthma symptoms.

Laura Artates of Clean Air Partnership conducted an air quality workshop with 2<sup>nd</sup> graders. Through role-playing, students learned how ozone molecules form. An Air Quality Index discussion led to brainstorming ways to cleaner air.

Lipscomb University faculty member Tamara Klingbyll taught 2<sup>nd</sup> graders about acid rain. Students tested the pH of rainwater and learned why pH is important to people, plants, and animals. They discovered that air pollutants cause acid rain and that events in other parts of the world can dramatically affect our air and water quality here.

Tammy Medlin, a representative from Clean Air Tennessee, presented an "open burning" unit to 2<sup>nd</sup> graders. Students learned not to burn trash, discussed fire safety and ways to prevent air pollution.

Each morning and afternoon, cars idle in front of the school, delivering and picking up children. Students now understand that exhaust from these cars is polluting the atmosphere around the school. On a sunny afternoon, when it was easy to see emissions pouring from tailpipes, four 2<sup>nd</sup> graders counted approximately 200 cars during one hour of regular dismissal. Fumes filled the air and infiltrated the building as doors were opened and closed. The students decided that this problem needs attention. We are brainstorming ideas to reduce air pollution, such as carpooling and establishing a no-idle zone outside school.

Clean air is a component of school safety. For some time teachers have smelled a strong odor of natural gas as they enter the building early in the morning. As people began to arrive in the morning, open doors allowed the gas to dissipate, making the source of the smell difficult for school facilities personnel to locate.

Additionally, there has been a mold problem in the wall and closet of the music room. This room is backed by the boiler room, which had a leaky roof.

#### THE SUCCESS

Nashville Gas performed an inspection of the entire natural gas system. Small leaks were discovered in the cafeteria and boiler room. Two hoses were incorrectly vented, resulting in gases accumulating in the building. Within two weeks of discovery, repairs were made, valves replaced, and hoses vented.

In March 2008, the boiler room roof was replaced with a "white roof" system. This repair has stopped leaks in the boiler room and hopefully eliminated the mold problem in the music room. The new "white roof" system, to be used in all future roof replacements, causes fewer emissions than the old black-tarred roof.

#### POLLUTION PREVENTED

As a direct result of these repairs, natural gas pollution was eliminated from our facility. The source of mold and mildew in an area visited weekly by every member of our student body has been repaired. Everyone is breathing easier because indoor contaminants have been reduced. Asthma sufferers and those especially sensitive to these pollutants can walk through the center of the building more confident of the purity of the air.

Through our Clean Air Month studies, everyone has become more aware that everyday activities can contribute to ozone, greenhouse gases, and acid rain. The school community as a whole is beginning to understand the global impact of our decisions, realizing that those decisions affect more than just the community around us.

**April 2008**